

REMARKS

Please change the practitioners and correspondence address for this application as shown in the accompanying Revocation Of Power With New Power of Attorney And Change Of Correspondence Address. A Statement Under 37 CFR 3.73(b) establishing the right of the assignee to make the foregoing change also accompanies this Amendment.

Please change the entity status of the Applicant's assignee to Large Entity. A Notification Of Error In Payment Of Fee(s) As A Small Entity (37 C.F.R. § 128(c)) and associated fee to make this change in the entity status effective as of the filing date of the application accompanies this Amendment.

Claims 1-20 stand rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness. It is believed that the foregoing amendments overcome this rejection.

Claims 1-3, 6-9, 13-15 and 19-20 stand rejected under 35 U.S.C. § 102(b) for anticipation by U.S. Patent Nos. 6,082,046 to Simmons and 5,079,417 to Strand; claim 18 also stands rejected under 35 U.S.C. § 102(b) for anticipation by the Strand patent; claims 4, 5, 10-12 and 16-18 stand rejected under 35 U.S.C. § 103(a) for obviousness from various combinations of the Simmons patent, the Strand patent and U.S. Patent Nos. 4,953,608 to Larsson; 6,443,509 to Levin et al.; and 4,274,226 to Evans.

Herein claims 1-20 have been amended. Claims 1-20 are pending in the application.

As amended herein, claim 1 generally recites a self-correcting sensing element device that includes a base configured to be fastened to a doorjamb or other stationary structure; an elongated support member having a base end, a working end, and an axis in the direction of elongation, said base end fastened to said base; and a sensing element in said working end. The support member is formed of a flexible material whereupon, in the absence of an applied deforming force, the support member has a first shape. In response to the application of the deforming force, the support member bends whereupon the working end moves relative to the base end and the support member assumes a second shape different than the first shape. Lastly, in response to the removal of the applied deforming force, the flexible material forming the support member returns said support member to its first shape.

The Simmons patent and the Strand patent, either individually or in combination, do not disclose, teach or suggest a sensing element device having all the limitations of claim 1. Specifically, the Simmons patent discloses, among other things, safety sensors 22 and 24, each of which is mounted to a mounting bracket 10. Each mounting bracket

10 has a safety sensor mounting surface 28, a hinge mount 30, and a rotation arm 32 attached to hinge mount 30 by screws 34. Each hinge mount 30 is configured to allow its mounting bracket 10 to be rotatively connected to the bottommost roller axle 16 of an overhead door 12.

When overhead door 12 is open, a distal end of hinge mount 30 of each mounting bracket 10 will hang below the leading edge of the door, as shown in Fig. 5. When door 12 nears its closed position, the rotation arm of each mounting bracket 10 contacts a stator arm 40 attached to the corresponding door track 18. As door 12 continues to close, mounting bracket 10 rotates about the bottommost roller axle 16 so that sensor 22 or 24 avoids contacting the ground, as shown in Fig. 6.

As can be seen, the Simmons patent does not disclose a self-correcting sensing element device having all the limitations of claim 1. Specifically, the Simmons patent does not disclose an elongated support member having a base end that is fastened to a base that is configured to be fastened to a doorjamb or other stationary structure. Rather, the Simmons patent discloses that its mounting brackets 10 utilized to support safety sensors 22, 24 are rotatably coupled to door 12 itself. In addition, the Simmons patent does not disclose a support member that bends in response to the application of a deforming force, whereupon a working end of the support member moves relative to the base end, which is fixed in position by the base, and the support member assumes a second shape different than the first shape. Rather, the Simmons patent discloses, teaches and suggests that each of its mounting brackets 10 always retains the same shape and simply pivots or rotates about a roller axle 16 of door 12 during operation.

Moreover, absent disclosing a support member that bends in response to the application of a deforming force, the Simmons patent cannot disclose, teach or suggest the limitation of claim 1 that in response to removal of the applied deforming, the flexible material forming the support member returns said support member to its first shape.

The Strand patent does not cure all of the foregoing deficiencies in the teachings of the Simmons patent. Specifically, the Strand patent discloses a sensing edge 10 mounted along the lower edge of an overhead door 12 located within a doorway 14 of a building 16. Sensing edge 10 includes a rigid, L-shaped channel 18 having a leg 24 including a pair of downwardly extending arms 26 and 28 with horizontal extensions 26a and 28a forming a slot-like opening 32 extending a length of channel 18. Channel 18 also includes a pair of extended pockets 34 and 36 on opposite sides of arms 26 and 28. Mounted over arms 26 and 28 is a U-shaped outer covering 44 having its upper arms terminating in swelled edges 46 and 48

which are received in pockets 34 and 36, respectively, to support outer covering as shown in Fig. 2. Outer covering 44 is a dual durometer rubber/vinyl extrusion which can be readily collapsed upwardly when a door contacts an obstacle when it is being closed. Outer covering 44 includes a rigid, hard rubber extending segment 52 which passes through slotted opening 32 and terminates in an actuating member 54 supported between arms 26 and 28.

At one end of channel 44 is mounted a light source assembly 56 while at the other end of channel 44 is mounted a photo switch assembly 68. When door 12 is in normal use, there will be an uninterrupted light from the source to the photo switch. When door 12, while closing, encounters an obstacle, outer covering 44 will be depressed upwardly, thereby forcing actuating member 54 upwardly to block the light thereby actuating photo switch 72. Such actuation may be utilized to deactivate the motor driving door 12, and even to reverse its direction of motion, if desired.

As can be seen, the Strand patent does not disclose, teach or suggest a self-correcting sensing element device having anything connected to a doorjamb or other stationary structure. Rather, the Strand patent discloses that its sensing element is connected to the bottom of a moving door. Moreover, the Strand patent does not disclose a support member that bends in response to the application of a deforming force whereupon the working end of the support member moves relative to the base end. Rather, the Strand patent discloses that both of its ends are fixed in position whereupon neither end can move relative to the other end.

Since neither the Simmons patent nor the Strand patent disclose an elongated support member having a base end connected to a base configured to be fastened to a doorjamb or other stationary structure, and since neither of these patents disclose, teach or suggest that the support member bends in response to the application of a deforming force, whereupon the working end moves relative to the base end, no combination of the Simmons and Strand patents can anticipate or render obvious claim 1 of the present application.

Absent disclosing, teaching or suggesting a device having all the limitations of claim 1, the Simmons patent and the Strand patent, either individually or in combination, cannot anticipate or render obvious claim 1, or claims 2-12 dependent therefrom.

As amended herein, claim 13 recites, among other things, a safety system for an automatic door that includes at least one radiation detection element positioned to detect presence or motion in or near said doorway and an electrical presence detecting system responsive thereto. The at least one radiation element is mounted on a flexible, elongated support having a first end held stationary by a structure adjacent the doorway, and a second end

that moves from a starting position relative to the first end in response to the application of a bending force to the flexible, elongated support. The second end of the flexible, elongated support returns to the starting position upon release of the bending force.

The Simmons and Strand patents, either individually or in combination, do not disclose, teach or suggest an elongated support having a first end held stationary by a structure and a second end that moves from a starting position relative to the first end in response to the application of a bending force to the support. Rather, as discussed above, the devices disclosed in the Simmons and Strand patents are attached on or adjacent the bottom of a moving overhead door - not a stationary structure adjacent a doorway. Moreover, the Simmons and Strand patents, either individually or in combination, do not disclose, teach or suggest a support for a radiation element that has a second end that can move relative to the first end in response to the application of a bending force to the support.

Absent disclosing, teaching or suggesting a safety system having all the limitations of claim 13, the Simmons and Strand patents, either individually or in combination, cannot anticipate or render obvious claim 13, or claims 14-19 dependent therefrom.

Lastly, as amended herein, claim 20 recites, among other things, a system for detecting a person or object in the path of an automatic door. The system includes a detecting system for detecting the person or object. The detecting system includes at least one radiation transmitter on one side of the door and at least one radiation detector on the other side of the door. Each of the transmitter and the detector is mounted on an elongated support that has a first end affixed to a stationary object adjacent the path of the automatic door. Each elongated support is made of a flexible material whereupon in response to the application of an applied bending force, the elongated support flexes whereupon the corresponding transmitter or detector moves from a first position to a second position. In response to removal of the bending force, the material forming the elongated support returns the corresponding transmitter or detector to its first position.

The Simmons and Strand patents, either individually or in combination, do not disclose, teach or suggest a system wherein each of a transmitter and a detector is mounted on an elongated support that is made of a flexible material, wherein the first end of the elongated support is affixed to a stationary object adjacent the path of an automatic door and in response to the application of an applied bending force, the elongated support flexes whereupon the corresponding transmitter or detector moves from a first position to a second position. Moreover, the Simmons and Strand patents, either individually or in combination, do not

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disclose, teach or suggest that in response to the removal of the bending force, the material forming the elongated support returns the corresponding transmitter or detector to the first position.

Absent disclosing, teaching or suggesting a system having all the limitations of claim 20, the Simmons and Strand patents, either individually or in combination, cannot anticipate or render obvious claim 20 of the present application.

The Levin et al., Larsson and Evans patents, either individually or in combination, do not cure the foregoing deficiencies in the teachings of the Simmons and Strand patents with respect to claims 1, 13 and 20.

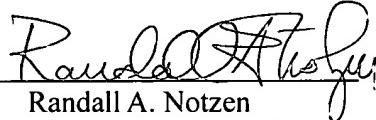
As can be seen, claims 1, 13 and 20 each claim a device or system having a novel and non-obvious combination of limitations not found in the prior art.

CONCLUSION

Based on the foregoing amendments and remarks, reconsideration of the rejections and allowance of claims 1-20 are requested.

Respectfully submitted,

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